

NON-PUBLIC?: N
ACCESSION #: 9503240111
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Washington Nuclear Plant - Unit 2 PAGE: 1 OF 4

DOCKET NUMBER: 05000397

TITLE: REACTOR SCRAM DUE TO PERSONNEL ERROR
EVENT DATE: 02/18/95 LER #: 95-002-00 REPORT DATE: 03/20/95

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: 1 POWER LEVEL: 078

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR
SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: C. J. Foley, Licensing Engineer TELEPHONE: (509) 377-4325

COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE NPRDS:

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

An automatic scram of the reactor occurred on February 18, 1995 at 1228 hours due to erroneous positioning of a control during performance of a scheduled periodic functional test of the Main Turbine Generator trip system. Plant systems performed as expected, except for an anomalous opening of one main steam relief valve which promptly reclosed without contributing to the event or hindering recovery. Scram recovery was uneventful. Immediate corrective action was taken to reposition the control, and to initiate scram recovery activities per standard procedures. The reactor scram was reported at 1424 hours via the Emergency Notification System per 10 CFR 50.72(b)(2)(ii) as an automatic actuation of the Reactor Protection System.

END OF ABSTRACT

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Event Description

At 1229 hours on February 18, 1995, WNP-2 was in operational Condition 1 (Power Operation) at 78% power. While performing a portion of a monthly Main Turbine Governor Valve FCV test, an Equipment Operator actuated the turbine trip reset lever HC instead of the adjacent turbine trip test lever on the turbine front standard PL. This resulted in an unintended turbine trip when the next step of the procedure was performed in the Main Control Room: depressing the turbine trip pushbuttons. This trip would have been prevented if the operator had actuated the correct lever.

Consistent with plant design, the main turbine tripped, resulting in an automatic reactor scram; reactor pressure increased from its initial value of approximately 990 psig to a peak value of approximately 1033 psig and promptly began to decline. Main Steam Safety-Relief Valve MSRV-1B RV opened briefly below its setpoint of 1076 psig and promptly reclosed, and thus did not contribute to the event or hinder scram recovery. All control rods inserted normally. The reactor water level decreased from its normal value of approximately 36 inches to approximately -4 inches as a result of the scram. Actuation of the Emergency Core Cooling Systems (ECCS) did not occur because the reactor level did not decline to automatic setpoint levels.

Immediate Corrective Action

As required during the initial stages of scram recovery, the Control Room operators immediately began following the Emergency Operating Procedures. After reactor conditions had been stabilized, the normal reactor cooldown process was initiated. The RCIC system was manually initiated and was operated between 1243 and 1255 hours to aid in maintaining reactor vessel level. By 1330 hours reactor level was restored to normal, approximately 35 inches.

At 1345 hours, the NRC Resident Inspector was notified of the scram. At 1424 hours, NRC was notified via the Emergency Notification System per 10 CFR 50.72(b)(2)(ii) as an event that had resulted in actuation of the Reactor Protection System.

Further Evaluation

There were no structures, systems, or components that were inoperable at the start of the event that contributed to the event. All equipment operated as expected, except for the anomalous momentary opening of the main steam relief valve which was later determined to have opened at approximately 1028 psig due to drift of the setpoint of the pressure

switch. The pressure switch was later recalibrated to its correct value; the cause of the setpoint drift is being determined.

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Root Cause

The procedure governing the test requires two individuals because of the physical arrangement of the controls and indicators. One individual operates the test lever and the other observes the DEH auto stop oil pressure, and provides procedural oversight and required communication with the Main Control Room. Past practice had been that the Shift Support Supervisor would actuate the lever because of the sensitivity of the test, and an Equipment Operator would provide test oversight and communication. Due to an on-going change of practice, the Shift Support Supervisor provided the oversight/communication function in this instance, and the Equipment Operator actuated the lever. Both individuals were qualified and adequately trained. The Shift Support Supervisor had performed the test within the last year, but the Equipment Operator had not performed the test for several years. Only a short pre-job review was conducted because the Shift Support Supervisor incorrectly assumed the Equipment Operator was familiar with the specific functions of the two levers. As a result of changing work priorities, the two individuals previously assigned to this task, who had conducted a more detailed pre-job review, had been reassigned.

ALARA considerations require that the test be performed expeditiously because the radiation levels in the immediate area exceed 1000 mrem/hour. Verbal communication in the area is difficult because of noise resulting from turbine operation. The two similar appearing levers were labeled correctly, but not to current standards. These levers are located adjacent to each other. The test was initiated in this environment, and the Equipment Operator actuated the wrong lever. The Shift Support Supervisor erroneously assumed the operator had actuated the correct lever and instructed the Control Room to proceed with the next procedural step, resulting in the reactor scram. Thus the root cause of the event is human error made in performing a routine test, due to inadequate pre-job preparation and failure to self check. Contributing causes are the adverse test environment, and the nonstandard labeling of the two similar appearing controls.

Further Corrective Actions

The turbine trip test and reset levers were painted in contrasting colors and clearly labelled, and the procedure was revised to reflect the new color coding of the levers. Additional self-checking training was

initiated to reemphasize the need to be especially alert for potential errors when performing routine activities. Supervisors are being required to participate in training of people to emphasize the importance of self checking, enhance expectations that they must adequately supervise activities under their cognizance, and ensure when changing work assignments that participants have fully prepared themselves and conducted an adequate pre-job brief.

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Safety Significance

This event had negligible safety significance. It is bounded by the transient evaluated in Chapter 15 of the WNP-2 Final Safety Analysis Report caused by a turbine trip from 105% power with concurrent failure of the turbine bypass valves to open. The consequences of that transient are acceptable and are limited to discharge of normal coolant activity to the suppression pool via operation of the Main Steam Relief Valves. This particular event was less significant because it occurred from a lower initial power level (78%) and the turbine bypass valves did open to mitigate the reactor pressure increase.

Previous Similar Events

LER 84-108 described a scram from 9% power when the reactor mode switch was erroneously placed in run below the automatic MSIV isolation setpoint of 831 psig. Corrective actions included briefing the operations crew and adding a caution statement to the startup procedure. LER 84-112 described a reactor scram from 40% power due to rapid reactor pressure reduction caused by entry of an erroneous reactor pressure setting into the Digital Electro-Hydraulic (DEH) Control Panel. Corrective actions included reviewing the incident with the operator and improving the visibility of the DEH control panel display. The corrective actions from these events, particularly given the time lapse since 1984, would not have been expected to preclude this event.

ATTACHMENT TO 9503240111 PAGE 1 OF 1

WASHINGTON PUBLIC POWER SUPPLY SYSTEM
P.O. Box 968 o 3000 George Washington Way o Richland, Washington 99352

March 20, 1995
GO2-95-056

Docket No. 50-397

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: NUCLEAR PLANT WNP-2, OPERATING LICENSE NPF-21
LICENSEE EVENT REPORT NO. 95-002 REVISION 0

Transmitted herewith is Licensee Event Report No. 95-002 for the WNP-2 Plant. This report is submitted in response to the reporting requirements of 10CFR50.73 and discusses the items of reportability, corrective action taken, and action taken to preclude recurrence.

Should you have any questions or desire additional information, please call me or D.A. Swank at (509) 377-4563.

Sincerely,

J. V. Parrish (Mail Drop 1023)
Vice-President, Nuclear Operations

JVP/CJF/jcs
Enclosure

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